



Newsletter

Simulation Based Engineering & Sciences

Year **11** n°2 Summer 2014

CO₂ Stripping Column Effluent System Application employing Saipem mechanical innovative Technology



Interview with the Tuscany District President of **Railway Technology**

Saipem's further innovation in **Urea Technology**



HPE: Passion for **engines** and a great push towards innovation

A modeFRONTIER case study about the optimization of the **windshield structure**



CFD analysis of a **lube oil tank**: air ingestion investigation

EnginSoft and Brembana&Rolle: key partner for the design of a steam **super heat exchanger**



Educational EU programme: EnginSoft involvement

EnginSoft is a partner within several EU projects that fall within specific programmes designed to build the experience of researchers regardless of age, gender or nationality with skills or disciplines relevant to their careers.

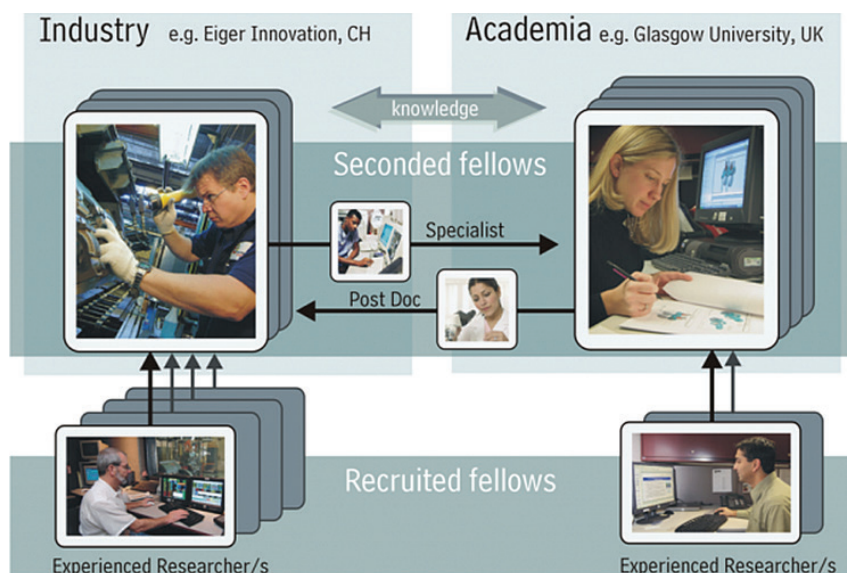
These specific programmes encourage the creation of a network between companies and public research organizations in order to increase the exchange of skills between between the two sectors.

The Marie Curie Actions of the Seventh Framework Programme (FP7) and the Leonardo programmes are European instruments to produce educational training.

In the Marie Curie Actions both “IAPP” and “ITN” projects may be found.

Industry Academia Partnerships and Pathways (IAPP) projects have the scope of creating networks between companies and public research organisations, using secondments and recruitment to facilitate a deep connection between industry and academia.

Initial Training Networks (ITN) projects have the scope of creating consortia aiming to train researchers at the start of their careers, based on joint research training projects. Trainees are mainly early-stage researchers (in the first 5 years of their work) who will broaden their research competences during their training by acquiring new skills through exposure to different sectors (private/public). Trainees must comply with the mobility rule, i.e. they have to move from one country to another country.



The Leonardo Programme facilitates the creation of traineeships or internships - typically for 4 or 6 months - at public or private institutions outside their country of origin and thus improve their skills, their knowledge of one or more foreign languages and cooperation between different states outside the European Union. The Leonardo Programme represents a good opportunity for recent graduates to practise their skills and knowledge acquired at university and, potentially, explore the possibility of working permanently away from their home nation.

Enginsoft's involvement in projects related to each of these three educational programmes is illustrated by the examples in the next page.

For more information:

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INTERCER2

IAPP PROJECT
<http://www.ing.unitn.it/dims/intercer2/>

CERMAT 2

ITN PROJECT
<http://www.ina.unitn.it/dims/ceramat2/>



Education and Culture
Lifelong learning programme
LEONARDO DA VINCI

COGAN

COMPLETENVINCINGOTECHNICALANALYSIS
<http://cogan.eu.com/>

INTERCER2: Modelling and optimal design of ceramic structures with defects and imperfect interfaces

FP7: Research and Innovation - Marie Curie Actions
Industry Academia Partnerships and Pathways (IAPP)

The industrial production of ceramic components is still based on empirically engineered processes, often poorly understood and difficult to control. The project addresses an in-depth scientific understanding of the production processing with the aim of production optimization and the development of new technological and industrial strategies. The proposed network involves three academic institutions and two industrial partners. The academic institutions provide the industry with support for the development of new material testing protocols and mathematical models aimed at simulating the forming processes, the analysis of defects and the improvement of production technologies. The industrial partners provide the academic institutions with the experimental data needed to validate their mathematical models and with their manufacturing experience. The consortium has been created to achieve the following main research targets:

- Modelling and experimental validation of the forming process of ceramics;
- Modelling, design and experimental analysis of innovative ceramic products.

Period: October 2011, September 2015 (48 months)
Coordinator: University of Trento
Funding Scheme: FP7 Collaborative Project
Call identifier: FP7-PEOPLE-2011-IAPP

CERMAT 2 : New ceramic technologies and novel multifunctional ceramic devices and structures

FP7: Research and Innovation - Marie Curie Actions
Initial Training Networks (ITN)

The CERMAT2 project aims to train young researchers in understanding the modelling of solid mechanics problems applied to the process and design of advanced ceramics in a synergic collaboration between academia and industry, in view of social developments related to enhancement of industrial production and pollution reduction.

The objectives of the project are:

- improvement of processes related to ceramic powder compaction and design of ceramic pieces;
- fundamental understanding of the behavior of granular and composite materials;
- development of multifunctional ceramic materials and structures.

Period: November 2013, October 2017 (48 months)
Coordinator: University of Trento
Funding Scheme: FP7 Collaborative Project
Call identifier: FP7-PEOPLE-2013-ITN

COGAN : Competency in geotechnical analysis

European Commission's Lifelong Learning Programme – Leonardo da Vinci

COGAN is a (non-profit) European project aimed at improving competency in geotechnical analysis. The project will achieve this by preparing a framework for defining and recording numerical analysis skills in geotechnical engineering as well as E-Learning modules in key technical areas.

The potential benefits to the geotechnical engineering profession are significant, including improvements in:

- business performance
- safety
- economy in design
- staff development/retention.

Period: October 2013, September 2015(24 months)
Coordinator: NAFEMS

